portion of the urine is clear, followed in the terminal portion by intense pain and the discharge of a few drops or even a larger amount of pure blood.

Very frequently its cause is a posterior urethritis of gonorrhœal origin, which has included the prostate. The ordinary methods of treating acute catarrh of the bladder should be employed in these cases. Rest in bed, regulation of the diet, and stools. Internally, ol. santali., but without warm sitz baths, warm compresses, or mineral waters. Only in the most resistant cases should local treatment be applied. In chronic gonorrhœa the local treatment should be commenced earlier.

Terminal hæmaturia is further an evidence of the presence of foreign bodies, as calculi, or of tumors, or the early stages of senile prostatic hypertrophy, and very frequently of tuberculosis of the bladder. In the latter cases all local treatment is avoided and a symptomatic treatment instituted. Urotropin is generally useless, and it is better to avoid sublimate solutions, even 1:30,000. Hæmostatic drugs have very little value; hydrastis is the best. Frequently the passing of a catheter will suffice to still the bleeding by reducing the congestion. The local use of tannin of the iron salts is to be avoided.

PEDIATRICS.

UNDER THE CHARGE OF

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The Etiology of Dysentery.—Escherich (*Centralblatt für Bakteriologie*, 1899, Band xxvi., No. 13, S. 385), referring to a recent publication of Shiga and Celli upon the etiology of dysentery, reviews the communication which he made upon this subject at the Congress of Carlsbad, when he described a number of cases under the name of coli-colitis, which he considers identical with those observed and described as infectious colitis two years ago by Finkelstein.

Escherich's cases appeared in epidemic form during the winter of 1894–1895. Fifteen children were affected, seven of whom died. A second epidemic occurred in 1896, and cases were seen again in 1898. The symptoms were those of an acute infectious inflammation of the mucosa of the large intestine, beginning abruptly with fever and collapse, the stools containing mucus, blood, and pus, not copious, but frequent, and attended with rectal tenesmus. The abdomen was retracted and the contracted descended colon could be easily palpated. Later the course was apyretic, with tendency to relapse. From the stools almost pure culture of the colon bacillus was obtained. Autopsy showed the lower portion of the large intestine contracted, thickened, its mucous coat swollen, congested, and covered with ecchymoses, in places presenting actual follicular ulcerations.

The symptomatology and the anatomic lesions were therefore those of a catarrhal dysentery such as have been described by Heubner. In these cases, as in those which have been more recently described by Shiga and Celli, the serum of the patients produced agglutination of colon bacilli obtained from culture of their intestinal discharges. Escherich therefore concludes that the cases of dysentery he observed were provoked by colon bacilli.

Treatment of Typhoid Fever in Children.—GLÉNARD (*Revue mensuelle des Maladies de l'Enfance*, January, 1900, p. 31) makes an interesting contribution to the discussion that has been raised in recent years as to the efficacy of the Brand system of treatment, restricting his study to the application of the bath treatment to the disease in children.

He first refers to the statistics, and shows that the mortality of cases treated by purely medicinal means is about 15 per cent., and that when the bath is employed as a succedaneum to a medicinal treatment, the figures are reduced to 11 per cent., while under a systematic bath treatment the mortality falls to 2.5 per cent. Even when treated by the mixed method, he says, typhoid fever in the child is a grave malady, because this ratio, which is an average one, can in certain cases, despite mixed treatment, reach double or triple the figures given; and if the epidemic is severe, and especially with children under five years of age, the mortality reaches the figures that obtain in cases treated by medicinal means alone. Moreover, he states, with the mixed method the prognosis remains uncertain, there is decided tendency to complications, even in the benign cases, the duration is long, convalescence is slow, and sequelæ may leave permanent effects.

On the other hand, he believes, with the systematic bath treatment, the mortality of which varies little from the average figures stated, and never exceeds a maximum which is very low, the prognosis is good from the first days of the disease, the complications are reduced to a minimum, convalescence is short, and sound health is assured.

Collapse, he states, is never observed among children by physicians who apply the systematic bath treatment to typhoid fever any more than by those who treat in the same way infantile pneumonia, a disease in which the heart is much more seriously menaced. The cause of collapse is to be attributed neither to too low a temperature of the bath, nor too prolonged a duration of the exposure within the proper prescribed limits as understood by the physician; but it is rather to be attributed to too high a temperature of the bath or to the cold bath given at too advanced a period of the disease without the medicinal help indicated by the state of the heart.

In the mixed treatment, he concludes, collapse may occur, because it is not the methodical treatment by the cold bath, and because the cold bath is not the basis, the essence, of the treatment.

Leucocytosis in Whooping-cough.—DE AMICIS and PACCHIONI (*Revue mensuelle des Maladies de l'Enfance*, January, 1900) have observed that the blood of pertussis patients constantly shows a leucocytosis which reaches a maximum in the spasmodic stage. It begins in the first days of the disease, and is occasionally prolonged for some time after the cessation of the typical paroxysms. It is largely at the expense of the lymphocytes.

In no other disease of the respiratory passages is a similar or so marked a leucocytosis encountered. The constancy of this feature of the disease suggests it as a valuable aid in early diagnosis, when prophylaxis may yet be possible.

The authors consider that this phenomenon is further evidence in support of the infectious origin of whooping-cough, were such needed at the present day, and that the important part in its production played by the leucocytes indicates a very active participation of the tracheo-bronchial lymphatic system.

The Pathogenic Action of the Proteolytic Bacteria of Milk.—JEMMA (*Revue mensuelle des Maladies de l'Enfance*, January, 1900, p. 20) makes the following résumé of the conclusions of a study under this title:

1. The ferments of casein which are found most frequently in milk belong to the group of the bacillus subtilis; this has no pathogenic influence upon animals experimented upon in the laboratory.
2. There may be encountered among these ferments of the casein certain microbes belonging to the group of the bacillus mesentericus vulgatus; among them are at times found certain bacilli possessing pathogenic properties, which explains the effect upon the intestinal mucous membrane produced by the ingestion of large quantities of these germs. Introduced within the peritoneum, into the blood, or under the skin, they produce no effect. From this it appears that the pathogenic action of these bacteria depends not upon toxins secreted by them, but upon disturbances they provoke in the intestinal contents and in the mucous membrane of the intestinal tract.
3. The bacillus butyricus of Hüppe and other varieties of this group isolated from milk are nearly always devoid of pathogenic action.

A Case of "Scurvy-rickets" in a Boy of Twelve Years.—EDMUND OWEN (*British Medical Journal*, December 23, 1899, p. 1719) records an exceedingly interesting case of scurvy observed in a boy of twelve years who had been allowed to live upon a diet entirely destitute of fresh fruit and vegetables. He exhibited marked rhachitic symptoms. The rosary was quite characteristic and the epiphyses of the radii were distinctly enlarged. Whether this condition had existed in infancy was unknown. The patient was a school-boy living in the country. He had apparently been always healthy, though nine months before he had been in the hospital for division of each tendon of Achilles. From the time of the operation he had been feverish and fretful, and the parents had given way to him on all points. On admission to the hospital, under Mr. Owen's care, he was very anæmic and sickly and had a wrinkled face. The knee-joints were swollen, some fluid was present; the ankles and feet were swollen and œdematous. The height was three feet eleven inches, and the weight only thirty-nine and one-half pounds. The teeth were slightly loosened, the gums spongy and occasionally bleeding when he ate hard food. The abdomen was swollen, the liver and spleen slightly enlarged. The urine was alkaline, specific gravity 1030, and contained a considerable amount of blood. The heart and lungs were healthy. As regards the diet, his mother said that he persistently refused to eat vegetables and fruit, and that he took little milk. At breakfast he had egg or bacon or some such thing, with bread and cocoa; at dinner meat or fish, with occasionally a little potato and more cocoa; later in the day he had tea and bread and butter, with occasionally potted meat; and at supper bovril or cocoa.

Subperiosteal effusion was present at the lower end of the tibial diaphyses, over each tarsus and the lower end of the femora.

After a sojourn of ten days in the hospital upon a diet of fresh fruit and vegetables, beef jelly, sweetened lemon juice, milk, meat, and bread and butter he was greatly improved.

The case is of great interest on account of the age of the child, which is far advanced beyond that at which infantile scurvy is ordinarily encountered.

[The origin of the stigmata of rickets in this case is doubtless to be assigned to the period of infancy, and there seems to be no evidence in the history that there was any closer relationship between the rhachitic lesions and the scorbutic symptoms. From this point of view the case should be classed rather as a scurvy of ordinary type than as an instance of infantile scurvy or "scurvy-rickets," as English writers are disposed to call it, occurring at an advanced age.—ED.]

Aneurism of the Aorta in a Child.—ROGERS (*Pediatrics*, August 15, 1899) records a rare instance of aortic aneurism in childhood. The patient was a girl, aged ten years, with a good family history, very anæmic, and showing a loud, rough, systolic murmur all over the cardiac area, loudest over the pulmonary region. The apex was displaced one inch outward, and a distinct fremitus could be felt. The progress of the case differed from that of ulcerative endocarditis. The temperature was constantly elevated, and the murmur increased in loudness. The urine was normal. Death occurred suddenly from cardiac failure. At the post-mortem the pericardium was found to contain some fluid with flakes of recent lymph in it; the left ventricle was greatly hypertrophied, and the aortic valves glued together by large vegetations. About half an inch above the right side of the anterior semilunar valve of the aorta was a rugged hole, the opening of a small aneurism, which was about the size of a cob-nut and was partially filled with clot. The other organs were healthy. The aneurism was not in the position of the obliterated ductus arteriosus.

The Composition of Backhaus' Milk for Infant Feeding.—KOLISKO (*Arch. f. Kinderheilkunde*, Band xxvi., Heft v. und vi.) describes the preparation of Backhaus' food as follows: Mixed milk is passed through the centrifuge and the cream separated. The separated milk is exposed to the action of a mixture of rennet, trypsin, and sodium bicarbonate, which are combined in such proportions that the trypsin will have converted 30 per cent. of the casein into soluble albumin at the end of thirty minutes. By this time the rennet coagulates the balance of the casein, and thus arrests the action of the trypsin. The temperature is then raised to 80° by the introduction of steam, and this temperature is maintained for five minutes. The milk is then strained through cloths, mixed with half its volume of water, one-fourth the volume of cream, and the necessary amount of milk-sugar. This mixture is then bottled in vials holding 125 grammes (four ounces) and sterilized.

A second grade for older children is obtained by mixing equal parts of the predigested milk and water with half the quantity of cream and with milk-sugar. This is supplied in bottles holding 200 grammes (six and one-half ounces).

A third grade, which imitates cow's milk in composition, and is supplied in bottles holding 300 grammes (ten ounces), is prepared by a similar method of modification.

The first grade shows the following composition: Fat, 3.1; sugar, 6.0; casein, 0.6; albumin, 1.0; ash, 0.4. The second: Fat, 3.2; sugar, 5.4; casein, 1.8; albumin, 0.3; ash, 0.4. The third grade shows: Fat, 3.3; sugar, 4.8; casein, 3; albumin, 0.5; ash, 0.7.

This preparation has been tried by Frühwald in twenty cases, the histories of which are given in the paper. All excepting six were under observation for more than two months. When first put upon this mixture all were suffering from different forms of digestive trouble and from malnutrition; some were suffering from severe marasmus, and most of them passed through some other acute disease while under observation. Under one or other of these mixtures average daily gains of 18 to 30 grammes were made (about one-half to one ounce). In private practice and in healthy children a daily gain of 50 grammes (one and one-half ounces) was said not to be rare.

THERAPEUTICS.

UNDER THE CHARGE OF

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Euphthalmin.—DR. ALBERT B. HALE states that in using mydriatics for diagnostic purposes three factors must be considered: (1) The least desirable is the action of the drug on the ciliary muscle, for however valuable this may be in estimating errors of refraction, it is always intensely disagreeable, often dangerous to the patient, and certainly unnecessary for the study of the liver or fundus. (2) The anæsthetic effect, most marked in cocaine, least so in atropine, which is of no use in diagnosis. (3) The most important is the dilatation of the pupil. To obtain the first effect we use atropine, scopolamine (hyoscine), duboisine, homatropine or cocaine, named in the order of their strength. To produce local anæsthesia cocaine and eucaine have disadvantages which have been overcome by halocaine. To produce the third effect we have had hitherto to resort either to atropine, which is so powerful as to be dangerous, and so lasting as to be disagreeable,